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# Gender Dynamics in Water Governance Institutions: The Case of Gwanda's Guyu-Chelesa Irrigation Scheme in Zimbabwe

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## **Abstract**

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## **Keywords**

gender, institutions, water governance, representation, decision-making, irrigation

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## Abstract

The need to incorporate women in development interventions has widely been highlighted in development literature. Despite recent attempts to include women in such efforts, the FAO's 2011 State of the Agriculture Report points out that gender imbalance is still a major concern. This study focuses on the Guyu-Chelesa irrigation scheme in Zimbabwe in an attempt to understand women's involvement in water governance institutions that are set up around these schemes. At one level, women are well-represented in these institutions. Nonetheless, despite their representation in positions of high-level decision making, their actual decision-making power is limited. For this reason, this paper argues that women, in water resource infrastructure management and rehabilitation, may be represented in form only, with highly circumscribed powers. This study makes recommendations on how to understand and take into account the differential gender power dynamics which are at play in such irrigation schemes. In particular, the study recommends that access to irrigation be linked to control of the benefits from irrigated agriculture. These calls for a valuation of women's contribution and the need to engage in broader societal changes as far as gender relations — well beyond the irrigation schemes — are concerned. Such a dialogue would also entail engagement of both men and women.

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Source: Author, 2014

## Introduction

This study defines gender as the socially ascribed rights, responsibilities and identities assigned to men and women. Such roles and responsibilities shape access to, and control over, resources; division of labor; interests; and needs, and affect security at both the household and institutional level; nonetheless, they are receptive to changes in cultural beliefs and practices (Ogato et al 2009). Van Koppen (1998) observes that the importance of women's involvement in water governance institutions has sometimes been noticed in the developing world. The intention behind the existence of institutions that incorporate women in management is to alleviate poverty through gender-sensitive property relations and tenurial rights. This pro-women stance, as supported by Meinzen-Dick and Zwarteveen (1998), is observed by Begum and Yasmeen (2011) in Pakistan, where women's inclusion in many spheres of natural resources

management overshadowed that of men, particularly in situations where the inclusion is mandatory and influenced by more indigenous parameters (Berry and Mollard, 2010). An irrigation project carried out in Peru's coastal region demonstrates the participation of women in water resource management and is supported by the institutions in question (Sultana 2002). In Zimbabwe, Manzungu (2002) highlighted the fact that efforts are being made to involve women in water governance, yet contended that women have been always involved in both domestic and productive water management in a holistic manner.

### **Gender and Water: A Review**

The transfer of certain powers from the central government to the lower tiers of governance aims to broaden participation as postulated by Agrawal and Gupta (2005) and enable more socially just outcomes (Brown and Purcell 2005); a mechanism which Khan (2011) asserts as being accommodative for both men and women. In Southern Africa, as in other developing regions, natural resource policy provisions have allowed women to be incorporated into agriculture and water governance through institutional transformation (Rukuni et al 2006). For example, Rukuni et al. (2006) provides that the institutional structure of water management in Zimbabwe has been streamlined with the formation of sub-catchments, which according to Nyikadzino et al. (2014) is designed to be inclusive of women through decentralization. Moreover, the policy framework in South Africa supports the recognition of traditional water governance structures, increasing the social adaptive capacity for integrated water resource management (Schreiner and Van Koppen 2003). The aim of the reforms, in theory, is to broaden participation of all end users, especially women, in the decision making process (Ribot 2003). Thus women have been given the platform to participate in decision-making about infrastructure in multipurpose water resource management (Beneria 1999).

Despite the inclusion of women, as noted by Sikole and Van Koppen (2004), Harris (2005) and Sultana (2002) indicate that in many instances the exclusion of women in developing countries has been noticeable, and - when it comes to decision making - the involvement of women in water resource and irrigation management is limited.

Dupar and Badenock (2002) consider there to be marked disparities when it comes to infrastructure management. Bennet (1995) says that the major reason why women have low involvement in water resource infrastructure management is that their voice is not recognised on decision-making platforms. Singh (2012) says that, in India, one of the pretexts for not including women in local water governance is that the feminine anatomy is not considered suitable for managing irrigation fields and maneuvering field gates — which is “a man's job”. The work of Zwartveen (1997) on women and masculinity confirms that irrigation is also usually considered to be a “man's world”.

Ahlers and Zwartveen (2009) indicate that women have been excluded from projects, and more often than not from water resource infrastructure management, in India. According to these authors, this exclusion has led to the development of hand pumps that were, ironically, perceived as too heavy for women to operate. A similar observation by Robinson (2003) indicates that in most Southern African countries, such as Zimbabwe, women have often been left out of the social, economic, and political arenas of water resource infrastructure management, particularly in irrigation schemes. In most cases, women have been relegated to domestic water committees, which are often led by males.

In support of the above view, Ahlers (2002) points out that the patriarchal system has resulted in the promulgation of gender inequalities in terms of participation in these institutions. Robinson (2003) shows that in Zimbabwe, the role of women in decision-making positions in water resource management institutions remains unacknowledged, especially

at the local level, where societal norms reinforce gender inequality in participation in the public arena. Sullivan (2009) demonstrates that water resource use and governance remains under the control of men, and women are sidelined to being household suppliers. Mollinga (2008) observes that neither traditional nor modern institutions recognize women's unique knowledge and experience in regulating and managing water resource infrastructure.

Much of gender literature (for example, Zwartveen 2006a) argues strongly for a more meaningful inclusion of women in water resource management institutions, whilst at the same time showing the barriers that exist to women's participation in decision-making in these institutions. In one example given by Ahlers and Zwartveen (2009), women attended irrigation meetings in Aden in Yemen, but the community members questioned their moral uprightness; they were perceived as deviant women who wanted to "become" men. According to Crow and Sultana (2002), even when women are involved in water resource infrastructure management, they are often assigned tasks that provide little opportunity to exert real influence over water infrastructure governance. Zwartveen (2006b) illustrates that in situations where water user institutions are required to have a quota of women, membership is given to members of local (female) elites at the expense of poor, marginalized women.

While studies by Van Koppen (1998) and Sikole and Van Koppen (2004) indicate an increase in the involvement of women in water resource infrastructure management institutions, Harris (2005) and Singh (2012) claim that there is still a disturbing level of exclusion of women in decision making around infrastructure rehabilitation and maintenance. Zwartveen (2006b) shows that the involvement of women in water resource infrastructure governance remains minimal, especially in Southern Africa and in the developing world at large.

These different views from the literature reflect tensions around issues relating to women and water, and hence, a greater precision is called

for in evaluations of how different members of the community, including women, are involved in water resource infrastructure management. Using the case of Guyu-Chelesa, this paper analyzes how women are involved in irrigation management structures, and if they are involved, what power they wield in decision making.

### **Guyu-Chelesa Irrigation Scheme (Zimbabwe)**

The Guyu-Chelesa Irrigation Scheme was first launched in 1965 with funding from the European Union. The scheme is located in Ward 14, Gwanda District, in the Mzingwane Catchment, which is part of the Limpopo River Basin in Matebeleland South Province, Zimbabwe. Ward 14 falls under the Nhlamba Chieftainship. A total of 150 plot holders are theoretically recorded as irrigators (plot holders using the scheme's water resources for crop production); however, there are only 120 irrigators on the ground, pointing to the fact that some plot holders have access to more than one piece of land through leasing or as inheritance. The scheme's main industry is crop production and dairy farming.

The irrigation design is an overhead sprinkler system. Water is pumped from the Thuli River using a sand abstraction method. There are two booster engines and two overnight storage tanks, as well as water pipes, hydrants and sprinklers. The study area is drought prone, falling under farming region five, which has an annual rainfall of between 250 and 350 mm.

### **Research Methods/Methodology**

In order to understand the gendered nature of irrigation, the participants were deliberately stratified — grouped into gendered strata by function and level of the management committee in which they participated as members. Data were obtained through documentary research, interviews, questionnaires and non-obtrusive observation. Documentary evidence from reports, registers and constitutions enabled the researchers to determine the nature of gender representation in water governance institutions. Data on the impact of gender imbalances in



management were obtained through randomly distributed questionnaires to plot holders, and key informant interviews targeting committee members and office bearers in various institutions surrounding water governance in the area. The non-verbal cues that elucidated culturally defined gender roles in decision-making were observed unobtrusively during field interactions. For instance, observing unobtrusively the patterns of representation and participation by gender during four consecutive irrigation scheme meetings and two village meetings on crop and livestock production, as well as the division of labour on management of different sections of infrastructure. Data were analysed through Microsoft Excel, which provided the frequency distribution that depicted the nature of gender representation in various management committees. Relationship maps were designed to help the researchers understand the nature of gender-related similarities and interactions amongst the various committees. Content analysis of documentary data and interview transcripts was also used to systematically derive aspects of gender patterns from various participants.

## Findings/Results

### *(a) Women's participation in irrigation farming on the ground*

Women in Matebeleland South Province of Zimbabwe are the majority in the farming arena, which in this area is culturally identified as the place for women. Field data on women's engagement in labour-intensive farming tasks obtained from Guyu-Chelesa irrigation scheme shows that, out of every 100 labourers, 75 are women. However, women seldom benefit much from their agricultural outputs since men usually make decisions on the fate of these outputs in their own interests. For instance, data from interviews held on 15 September, 2012 indicated that men in Guyu-Chelesa often opt to invest in tasks such as cattle management, an activity that can increase a man's status in the community, despite the fact that a significant amount of the money that is needed for these perceived "bigger" investments comes from

farming. Women are the irrigators on the ground and they are the ones who must often confront issues of infrastructure maintenance. Due to their larger representation in the scheme, women provide cheap labour, and repairing underground water pipes is labour intensive. This work, which requires long hours in the field under difficult conditions and often with poor tools for doing the job, has negative impacts on the women, who are often burdened with other domestic responsibilities. Most of the tools for fixing irrigation infrastructure are owned by men. Women often have no option but to use cheap and inefficient tools. The human costs of rehabilitating small water infrastructure are considerable. Thus, having mostly men in infrastructure management positions presents a situation that does not accommodate the interests of the women, who are conscious of and have direct interaction with the material goods on the ground and are dependent on these goods for their livelihoods.

### *(b) Women's participation as members of Water Users' Associations*



Source: Author, 2014

Usually, in patriarchal societies within Southern Africa, the criteria for membership in Water Users' Associations (WUAs) are male biased as indicated by Derman et al. (2005). However, in this particular case, many women have managed to satisfy or get around the male-biased criteria.

According to the Guyu scheme plot allocation register, out of 150 plot holders, 105 are women and 45 are men. There are also more women than men currently practicing irrigation farming, showing an average representation of 67 in every 100 water users. This is an indication that the study area is female dominated, a shift that has seen the involvement of women as water users and to a certain extent as managers.

*(c) Membership in all committees of the Water Users' Association*

There is less gender balance at the committee level, involving the following institutions: Irrigation Management Committee, Cropping Committee, Disciplinary Committee, Marketing Committee and Advisory Committee. Women's representation in these committees seems to vary by institution and level of decision-making, and the percentage of women on the committees is still not proportional to the number of women conducting irrigation farming. In the Guyu-Chelesa scheme, the Irrigation Management Committee consists of four women and three men. The Cropping Committee is made up of five members, and of these, four out of five are female. The Advisory Committee comprises four members, one female and three males. Men have also been dominating the Disciplinary Committee, with only one female on the four-member committee. The Marketing Committee comprises two women. In total, the committees show a representation of 12 women out of 22 irrigation committee members. Thus, women comprise the majority of the committee members, and could be said on that basis to be well represented in management, even in the highest committee where the chairperson is a woman (Mrs. Ndebele).

Even though women's representation in water resource infrastructure management has significantly increased, the belief is that this increase is a result of circumstantial necessity or coercion by the males. Men are often absent from the farming arena due to death, migration or giving low priority to irrigation farming; in this way, the outright responsibility to take care of water resource infrastructure ends up

falling to the women. For instance, out of nine widowed irrigation committee members, eight were women. During an interview held on 19 September, 2012, Mrs. Nyati, a secretary for the dairy committee, (subcomponent of the cropping committee), indicated that some of the men have been driven away from the area due to economic hardships.

**“Some of the men have moved to other places ... far away ... to search for work,” she said.**

The Zimbabwe National Statistics Agency's (2012) figures reflect this gender distribution pattern, showing Matebeleland South Province, where Guyu is located, as composed of 48.2 percent males and 51.8 percent females. Men abdicate management responsibilities through death or by choosing to leave and find work elsewhere, which creates circumstances where women engage in management positions by default and as a gap-filling strategy. The committee meeting attendance register indicated that on average, any given man will attend only 35 percent of the meetings, while any given woman on average attends 65 percent of the meetings. While some men participate in irrigation farming, they prefer not to attend management meetings and have their wives attend the meetings on their behalf, as indicated by the engine operator (Mr. Sengo) during an interview held on 20 September, 2012:

**“I do not attend irrigation scheme meetings because I will be busy doing other major things elsewhere ... I normally send my wife to represent me.”**

Thus, the absence of men during meetings and in irrigation farming practice leaves the women with uncontested space in the management arena while the decision making power still stays with the men. Nonetheless, such circumstantial entry by women into management provides a basis for renegotiation of gender roles where women are able to make decisions in situations previously controlled by men. Thus the coercion can be used by the assumed weaker group,

the women, as a weapon in the struggle to redefine gender roles and responsibilities. The perception by people in the WUAs that women's responsibilities and positions of authority are imposed by men or occur by default compromises women's authority in decision making even in situations where women have legitimately entered decision-making platforms. During an interview held on 18 September, 2012, a key informant from the sub-catchment council, representative Mr. Ndebele, stated,

**“Women are now occupying higher positions in the management of water resource infrastructure. They are forced into these positions by men even though traditional local culture does not allow them to be leaders.”**

Statements like this rob women of their legitimacy in leadership; however, it is important to notice that the source of this observation is also a man, probably applying stereotyping towards female leaders — inevitable bias encountered when eliciting gender-related data. In Guyu, the patriarchy system still orders relations between the sexes and between generations, and on specific lines. It divides infrastructural management into masculine and feminine spheres and into decision-making circles, with men holding most of the power.

Hence, women's involvement in institutions that manage water resources remains incomplete. Moreover, there are challenges that make it hard for women to participate in management, such as level of technical expertise, level of management, and culture. A case in point: from 20 survey responses on engine operation and installation, 17 responses were from men while three were from women, a pattern attributed to patriarchal responsibility. Yet an examination of the irrigation committee records indicates that women performed 15 out of 20 hydrant pipe maintenance operations recorded over the last three years. Thus men dominate the engines level, where fundamental water flow management occurs, while women's presence

is felt at the peripheral components such as hydrants. Culture also shapes water resources management, as indicated by Mrs. Sibanda, a plot holder, on 21 September 2012,

**“The home belongs to the man ... he makes the rules and enforces them himself ... culturally, men have [more] decision making power than women ... even in the scheme, women are in management but when it comes to critical issues, men are always recognized.”**

This implies that the household gender power hierarchy is observed even in the irrigation contexts where the same men and women interact. Moreover, such a statement indicates the incapacitation of women as a result of cultural adherence, a tool for suppressing female power. Obviously this authority or lack thereof has an impact on water resource infrastructure management.

#### *(d) Women's voice in the committees*

There are power struggles between men and women when making decisions in management positions, and women's voices often are not listened to regarding infrastructure management. In Guyu, even though men rarely attend irrigation meetings, they make binding decisions, sometimes in absentia, which they impose upon the women; meanwhile, women who are always attending meetings lack the power to make binding decisions. An observation made on 18 September, 2012, at the Agritex offices indicated that three male non-irrigators had come to give the Agritex officer a word of advice on the best way to remove the sand that had clogged in the irrigation pipes — knowledge they obtained through their wives. That meeting resulted in the men informally deciding that a new engineer was to be hired to redesign the scheme, and the decision was adopted by the Agritex officer, who later instructed the irrigators to hire the required technician. While conducting this research in Guyu, it was observed that the views of women, even when they were voiced, were not as well accepted as the views of men. At the four consecutive management meetings held,



a total of 26 motions were made; 14 were from men while 12 were from women; yet of the 16 accepted motions, 12 of them were from men, while four were from women. This suggests that, even though there are more women in the irrigation management team than men, both men and women are unlikely to accept motions made by women. Participation by women does not seem to have an outstanding impact as a result of gender power relations.

From our observations, men executed three out of four water-management decisions in the Guyu-Chelesa scheme. The presence of women often reinforces the decisions that have been made by men, as the women are called upon to vote on the decisions, whose outcome women have little or no chance to influence. For instance, male candidates were nominated for disciplinary committee posts. Even though there were no female candidates, and men had nominated the other candidates, the women at the meeting were required to cast their vote for the nominees. By virtue of their large numbers, women reinforce the election of men into positions. There is a token representation of women, while men dominate the committee.

Women's ideas regarding infrastructure management and rehabilitation are accepted depending on the level of complexity of the issue. For example, women are given the opportunity to participate more when putting across ideas to do with the peripheral maintenance of the infrastructure and with financial contributions than when providing technical expertise on the management of the infrastructure. For instance, when funds were needed to repair the Scheme's engine, the chairperson (Mrs. Ndebele) collected the money from the plot holders on 22 September 2012, but failed to decide on the requirements for fixing the malfunctioning engine, a task she acknowledged as a man's place and which then

was left for men to decide. Thus the committee had to wait for the vice chairman to come and give them the decision, since he was perceived to be the community's real opinion leader.



Source: Author, 2014

Thus men use institutions to create public space for women, portraying this as equality in decision-making, yet at the same time manipulating the same institutions formulated through male ideologies to deprive women of potential benefits — institutionalizing the continued suppression of women. For instance, though women are highly

represented in committees, they act more as implementers of decisions made by men. In this way, men create opportunities to concentrate their locus of control in institutions, while women are made to appear unskilled through strategically designed gender insensitive infrastructure. In Guyu such a scenario was observed during engine operations where women appeared technically excluded. For instance, the engine near the river has an underground operating handle which can be reached using an unsecured ladder down a narrow opening, a setup which is culturally perceived as not suitable for female irrigators.

As a result of cultural adherence, women are excluded from operating this particular engine; as a consequence, they have limited decision-making authority toward such infrastructure. Despite women's exclusion from infrastructural technical operations, the survey results show that 30 in every 100 women have knowledge about operating engines; however, they tend to be involved with the booster engines, whose operating handles are easily accessible (above the ground) and which are perceived as suitable for women. Thus, even when women are largely represented in management, that is not an end in itself, since they still face challenges in access and, to a certain extent, in capacity for making

decisions regarding some components of the infrastructure, such as engines. Men, therefore, continue to exercise power and authority over women in water management.

## Conclusions

Women in the Guyu-Chelesa irrigation scheme constitute the large majority of farm decision-makers, and are even relatively well represented as members of the WUA. However, in leadership, men are disproportionately represented as committee members, and even more dominant as decision-makers, especially in technical decisions, an area from which women are deterred culturally and which they therefore have little knowledge. The reason for this 'bottom-up' gender analysis is that women's exclusion in committees is quite normal (and difficult to overcome) in "male farming systems" the world over, where men also dominate all the farming. However, in Africa women are the majority of farm human capital, and they are still excluded from leadership. Having at least proportional representation of those who do much of the farming at each higher level of decision-making serves both equity and productivity. Given this huge diversity in the gendered organization of farming across the world (and even within countries), women's involvement in water governance structures is highly contextual.

In Guyu, regardless of the fact that many women hold high levels of formal decision-making authority, men still dominate the decisions made in these institutions. The research findings at one level suggest that women are highly represented in water resource institutions. However, their decision-making capacity is not recognized in these institutions. In the end, there is no substantial participation by women in water resource infrastructure management and rehabilitation. Despite progressive mechanisms that promote women's participation, their meaningful inclusion in water resource infrastructure management is yet to be realized in the face of gender power relations.

Gender relations can be meaningfully addressed by engaging both men and women in real representation and in decision-making — particularly by reducing the perceived knowledge and skills gap by facilitating equity in decision-making capacity. This can be done partly through water resource infrastructure management skills training, especially for the women, which can involve blending contemporary skills acquisition processes and traditional culture. There is also a need to address the fact that men seem not to appreciate women's capability in management even when they are capable; this might be changed through structural gender-based reform mechanisms such as restructuring the existing institutions as well as reconstructing and redefining the societal position of women in water resources management. This would allow both men and women to be engaged in critical decision making in a gender-sensitive way.



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